



**United States Custom House – Philadelphia, PA
Scope of Work (SOW) for
3D-BIM Services**

**U.S. General Services Administration
Public Buildings Service
Office of the Chief Architect
National 3D-4D-BIM Program**

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A complete copy of this announcement is available at <http://www.gsa.gov/bim>. Click the BIM Solicitations link on the left.

Program Information and Project Description

Program Information:

In July 2003, the Office the Chief Architect (OCA) established the National 3D-4D-BIM Program. To date, OCA has initiated over 70+ capital projects across the nation using an array of 3D, 4D, and Building Information Modeling (BIM) technologies in support of GSA business needs. The power of visualization, coordination, simulation, and optimization from three-dimensional (3D), four-dimensional (4D), and BIM computer technologies allow GSA to more effectively meet customer, design, construction, and program requirements. GSA is committed to a strategic and incremental adoption of 3D, 4D, BIM technologies. One primary application area of this program includes the use of 3D imaging technology to augment and streamline the management of as-built spatial information (www.gsa.gov/bim).

Project Description:

Project Name: United States Custom House Envelope Repair

Building Type: Custom House

Year Built: 1934

Location: Downtown Philadelphia, Pennsylvania

Project Phase: The project is currently in the Programming Phase. The Programming Phase will last approximately through October 2008.

Description:

The United States Custom House was completed in 1934 and is seventeen-stories in height. The building consists of a three-story base, stepping back to raise 14 additional stories as a cruciform tower. Many decorative elements adorn the exterior of the building including eagles, shells, sea creatures, symbols of the government, commerce and maritime history. There are a total of 8 different roofs and 1050 windows. The Custom House is presently being considered to be named a national historic landmark.

On the whole, the United States Custom House, which stands prominently in the oldest section of Philadelphia, is one of the best preserved and elaborate 20th century federal buildings in the city. It represents a grand gesture to modernism, while relating to the scale and streetscape of the old city.

Base Building

The square, three-story Indiana limestone base of the Custom House is composed of two primary elements defined by the treatment and massing of the masonry and windows. The lower base of the building extends from ground level to the masonry sill of the second story windows (Appendix A – Figure 1). The masonry below the sill of the first floor windows is granite, while the remaining portion of the lower base is clad in seven courses of rusticated limestone blocks that are chamfered at the edges, which make the joints appear almost two-inches wide. The massiveness of the lower base is accentuated by the deeply recessed arched window and door openings.

Above and juxtaposed to the more massive lower base at the first-story is the visually lighter and attenuated upper base, which extends two stories high. The second and third floors are configured as a single story by using ashlar limestone units with narrow flush joints, punctured by two-story-high steel window units. Soapstone spandrel panels between the two stories, some carved with marine figures, appear to be integral to the window and screen the floor behind them. A limestone parapet terminates the base of the building. A carved limestone parapet and cornice caps the center and corner pavilions, while the areas in between are capped by a limestone parapet and cornice with brick inlay panels. The seal of the United States is carved in the parapets at the center pavilions; while garland draped shields decorate the parapets at the corner pavilions.

The three-story base with projecting center entrance pavilions and secondary corner pavilions, of one bay each, is nearly identical on the North, East and West Elevations. The north and main entrance pavilion, facing Chestnut Street is the most prominent pavilion. It consists of three arched door openings adorned with an eagle keystone above the arch. Large aluminum relief panels fill the recessed arched openings. In the center opening is the allegorical figure of America with an eagle, buffalo and torch. The east relief panel is a ship with nautical tools depicting American industry, while the west relief panel illustrates American agriculture.

Flanking the three entry doors on the North Elevation are large freestanding, eight foot-high decorative octagonal aluminum lanterns.

The Center Pavilions on the East and West Elevations are similar to the primary North Center Pavilion, but feature only one arched entry door with five windows above. The seal of the Treasury Department with draping floral garlands adorn each arched doorway. Smaller, wall-mounted octagonal aluminum lanterns flank the sides of these secondary entrances. The aluminum relief panel in the west

doorway depicts Asian culture and industry, while the relief panel on the east side represents European culture and industry.

The South Elevation, designed as a loading dock, differs from the other elevations at the lower base only. Between the corner pavilions is a wider, one-story, pavilion with seven arched entryways for vehicles. The one-story pavilion is capped with a limestone parapet with brick inlay panels.

Lower Tower

Above the three-story base, the building step back and raises 14 additional stories as a cruciform tower. The first and widest recessed block is two stories high, while the second and tallest rises six stories and terminates in a parapet wall just above the 12th Floor (Appendix A – Figure 1).

Brick is the principal cladding material, but a central, slightly projecting limestone facing on the cardinal facades creates a bold white vertical skyscraper form that rises from the base of the building and extends continuously to the terra cotta sections and lantern at the top of the building. The verticality of the tower form is juxtaposed to the wide horizontal limestone band at the tenth and eleventh floors which repeats and mirrors the bold horizontal limestone band at the base of the building with arched openings. The eleventh floor consists of a limestone arcade of Romanesque windows with a limestone balustrade. The tenth floor consists of a horizontal limestone belt course with brick, punctuated with octagonal-framed limestone bull's eyes or port holes, consistent with the nautical theme repeated throughout the building.

Upper Tower/Lantern

Above the 12th floor, the building steps back again in brick, with terra cotta used as the contrasting white material. Originally, the terra cotta was almost identical in color to the limestone (Appendix A – Figure 1).

The upper tower is octagonal in plan with setback roofs. In addition to the main (top) roof, there are five continuous setback roofs. On the north, east, south, and west elevations there is an additional setback roof at the 15th floor.

At the 12th Floor is a terra cotta balustrade adorned with large ball finials and large winged terra cotta eagles at the corners. The next setback raises two stories high with projecting terra cotta pavilions. The two story-high window openings accentuate the verticality of the terra cotta spire. The pavilions are capped with terra cotta parapet walls with ornate frieze panels and large urns. Above the 15th floor rises the three-part terra cotta lantern with diagonal terra cotta tracery, a garland decorated frieze and large ball finials on the cornice.

Scope of Services

1.0 OBJECTIVES

- 1.1. To create an accurate current-condition record of the existing building conditions and assist in the repair and alteration work throughout its design process. The 3D imaging at this location will provide 2D CAD plans, elevations and 3D geometric models and/or BIM required to document as-built conditions, including details of the roof. The elevations will assist architecture and engineering firms in developing their restoration and renovation designs.
- 1.2. To generate a point cloud of the building exterior for applications such as archival, visualization, and site planning.
- 1.3. To assist GSA in developing 3D Imaging Best Practices that will be incorporated into GSA's BIM Guide Series. It is the intention of the government to develop the Best Practices in a collaborative way so that current and future 3D imaging yields high quality deliverables in the most efficient manner.

2.0 DELIVERABLES SUMMARY

2.1. Deliverables Summary Table

The deliverables are summarized in Table 1 below. Information, deliverables, and services are explained in subsequent sections. Supporting images and drawings can be found in Appendix A.

Table 1: Deliverables Summary Table (DST)			
Area of Interest (AOI)	Deliverable		Type
	SOW Section	Description	
General Requirements			
Applicable to all Areas of Interest	3.1	Imaging/Scan + Post-Processing Plan	Base
	3.2	Registered Raw Data (subject to tolerance and resolution requirements of corresponding Areas of Interest)	Base
	3.5	Quality Control Report	Base
Level 1			
Coordinate Frame: State Plan Coordinate System (SPC)			
<i>Unless otherwise noted, registered raw data, drawing, and modeling specifications</i>			

<i>shall be:</i>			
Tolerance: +/- 2", Minimum Artifact Size: Resolution 2" x 2"			
1-A Site	3.3.1	Site Plan (Existing)	Option A
	3.4	3D/BIM (Existing)	Option A
Level 2			
Coordinate Frame: Project			
<i>Unless otherwise noted, registered raw data, drawing, and modeling specifications shall be:</i>			
Tolerance: +/- 1", Minimum Artifact Size: Resolution 1" x 1"			
2-A Exterior (Facades, Roofs and Roof Equipment)	3.3.1	Plans (Existing Roofs)	Option A
	3.3.2	Elevations (Existing)	Option A
	3.4	3D/BIM (Existing)	Option A
Level 3			
Coordinate Frame: Instrument Coordinate			
<i>Unless otherwise noted, registered raw data, drawing, and modeling specifications shall be:</i>			
Tolerance: +/- 1/4", Minimum Artifact Size: Resolution 1/2" x 1/2"			
3-A "P" Type of Windows (20 total): Interior & exterior	3.3.1	Plans (Existing)	Option B
	3-B Terracotta Eagles (4 total)	3.4	3D/BIM (Existing)

2.2. Table Parameters

The parameters in Table 1 are:

2.2.1. Level of Detail

A hierarchical system of scale with identified Areas of Interest (AOI) in which each 3D imaging/scan is registered per the scanning specifications outlined in Table 1.

2.2.1.1. Level 1

All deliverables at this level of detail shall be registered to State Plane Coordinates (SPC) or equivalent if approved by GSA COTR. Unless otherwise noted, registered raw data, drawing, and modeling tolerance for Level 1 areas of interest shall be +/- 2". Registered raw data, drawing, and modeling deliverables shall cover all building features and elements with an artifact size that is larger than 2" x 2".

1-A: Site: The subject building and the surrounding landscape, buildings, and streetscape (Appendix A: Figures 5 and 6). The United States Custom House is located in downtown Philadelphia at the corner of 2nd and Chestnut Streets. The building footprint is 268 by 268 ft. The terrain around the building is an

urban environment. Area bounded by 2nd, 3rd, Chestnut and Walnut Streets. See Appendix A – Figure 5 for limits of site scan

2.2.1.2. Level 2

All deliverables at this level of detail shall be registered to Project Coordinate Frame or equivalent if approved by GSA COTR. Unless otherwise noted, registered raw data, drawing, and modeling tolerance for Level 2 areas of interest shall be +/- 1". Registered raw data, drawing, and modeling deliverables shall cover all building features and elements with an artifact size that is larger than 1" x 1".

2-A: All exterior facades, roofs and roof equipment. (Appendix A: Figures 2-13). Contractor shall coordinate with GSA Region 3 Project Manager to gain access to roofs. Contractor shall not assume that access to surrounding buildings is available. Contractor shall assume that scanning will be from the ground or from the roofs of the building itself.

2.2.1.3. Level 3

All deliverables at this level of detail shall be registered to the instrument coordinate frame or equivalent if approved by GSA COTR. Unless otherwise noted, registered raw data, drawing, and modeling tolerance for Level 3 areas of interest shall be +/- 1/4". Registered raw data, drawing, and modeling deliverables shall cover all building features and elements with an artifact size that is larger than 1/2" x 1/2".

3-A: There are multiple types of windows in the building from type "A" through type "W." A total of five (5) windows interior and exterior of type "P" (Appendix A: Figure 16 and 17) in each façade of the building for a total of twenty (20) windows. The contractor and the Region 3 Project Manager shall coordinate which windows shall be scanned in Appendix A – Figure 17.

Contractor shall coordinate with GSA Region 3 Project Manager to gain access to interior spaces for scanning.

3-B: All Terracotta eagles (Appendix A: Figures 14-15), four (4) total located on the 12th floor roof.

2.2.2. Type

Refers to the requirement of either Base deliverables or Optional deliverables, as determined in Table 1 and Appendix B.

2.2.3. Tolerance

The allowable dimensional deviation, relative to the selected coordinate frame or the deliverables, measured in Imperial Units (English Units).

2.2.4. Minimum Artifact Size (Resolution)

The dimensions of the smallest recognizable feature to be included in the deliverables, measured in Imperial Units (English Units).

3.0 SPECIFICATION OF DELIVERABLES

3.1. Imaging/Scan and Post Processing Plan

The contractor shall develop a scan plan that explains how they will meet the requirements of Table 1 (see section 2.1). The plan will describe the methods and means of their operation, including but not limited to: equipment used, instrument calibration standards, current instrument calibration certification, scan procedures, control network methodology, personnel qualifications, proposed schedule for gathering field data (including alternatives in case of inclement weather), quality control plan, safety protocol and steps to be taken if there is missing data or errors. The contractor shall also explain how the registered scan data will be reduced in size (to filter noise and redundant data) after registration to the maximum extent possible without compromising quality.

The contractor shall develop and submit a post-processing plan. The plan shall address how the requirements of Table 1 will be achieved. This will include scan data processing software, modeling software, personnel qualifications, a description of the work flow from data acquisition through delivery, and quality control plan. This includes the processing of data obtained from auxiliary means, such as photographs and traditional surveys. Contractor shall submit any data obtained from auxiliary means as part of the deliverables. For Options A-B, the contractor shall specify whether the models to be submitted will be 3D geometric models or BIM. Post-processing shall not commence until a post-processing plan is approved by the GSA COTR.

The scan plan and post-processing plan will be subject to the government's approval and scanning is not to commence until the scan plan and post-processing plan have been approved by the GSA COTR. The review and acceptance of the scan plan and post-processing plan by the GSA COTR does not obviate the provider from the responsibility of providing the specified tolerances for the deliverables in any way.

If at any time modifications are made to an already approved scan or post-processing methodology, it is the contractor's responsibility to update the scan or post-processing plan and send the revisions to the GSA COTR.

3.2. Registered Raw Data

The contractor shall submit registered raw data. Such raw data may include point cloud data, calibrated photographs, satellite images, etc. If 3D imaging technology is employed, the preferred format for this data is in ASCII: x, y, z, I, R, G, and B (if intensity and color information are available). Other formats may be acceptable and are subject to approval by the GSA COTR. The registered point cloud data shall be reduced in size, to filter noise and redundant data to the maximum extent possible without compromising the accuracy and resolution of the model.

Unless otherwise noted or pre-approved by GSA, registered raw data shall conform to the scanning specifications outlined in Section 2.2.1. The tolerance for Level 1 shall be +/- 2" and the minimum artifact size shall be 2" x 2" resolution. The tolerance for Level 2 shall be +/- 1" and the minimum artifact size shall be 1" x 1" resolution. The tolerance for Level 3 shall be +/- 1/4" and the minimum artifact size shall be 1/2" x 1/2" resolution.

3.3. 2D Drawings of Existing Conditions

The contractor shall submit 2D representations of existing conditions of the areas scanned using the registered raw data from Deliverable 3.2. The government shall provide current drawings and specifications for each facility structure, if available, after GSA issues the Notice to Proceed. The 3D imaging information is expected to be used for verification and modification of existing 2D CAD drawings which will be provided by the GSA to the contractor.

The GSA PBS CAD standards apply for all cases of this deliverable. The PBS CAD standards can be found at the public GSA website: <http://www.gsa.gov> (Home > Buildings > Public Buildings > Design and Construction > CAD Standards > CAD Standards Library). The contractor shall extrapolate the drafted drawing beyond the limits of the laser scanner range to the maximum extent possible showing as much detail as possible. Other traditional forms of surveying are acceptable as supplements to the 3D scanning process in order to capture data that exceeds the maximum limits of the scanner. Contractor shall clearly indicate the areas in which the data is extrapolated. Areas in which the data is extrapolated are exempt from meeting the tolerance requirements. Contractor shall notify GSA of all occluded areas before proceeding to extrapolate data for these areas.

Contractor shall submit 2 sets of large paper drawings 36" x 24" to the GSA COTR and the regional representative of the project; submit two additional electronic copies of the same drawings in ".dwg" format, one to GSA COTR and another to the regional project manager.

2D drawings shall conform to the scanning specifications outlined in Section 2.2.1. The tolerance for Area of Interest Level 1 shall be +/- 2". The drawings shall cover all building features and elements with an artifact size that is larger than 2" x 2". The tolerance for AOI Level 2 shall be +/- 1". The drawings shall cover all building features and elements with an artifact size that is larger than 1" x 1". The tolerance for AOI Level 3 shall be +/- 1/4" and the drawing shall cover artifact size larger than 1/2" x 1/2".

3.3.1. Plans

The contractor shall provide plans of the AOIs. Plans shall represent the as-built conditions of facility and its surroundings.

3.3.2. Elevations

The contractor shall provide elevations for the AOIs. Elevations shall represent the as-built conditions of the exterior condition of the facility.

The system of measure for modeling renovation and alternation projects can be soft metric (e.g., designations such as “1 inch (25.4mm)” in which metric equivalents are attached to English units).

3.4. 3D/BIM Model of Existing Conditions

The contractor shall model the existing condition of the facilities (e.g., represent deformations and out-of-plumb conditions of artifacts that are subject to the artifact size definitions) for the architectural, structural, mechanical, electrical, and plumbing components listed below using either a 3D model (Section 3.4.1) and/or a BIM model (3.4.2).

3D/BIM model(s) shall conform to the scanning specifications outlined in Section 2.2.1. The tolerance for Area of Interest Level 1 shall be +/- 2". The models shall cover all building features and elements with an artifact size that is larger than 2" x 2". The tolerance for AOI Level 2 shall be +/- 1". The models shall cover all building features and elements with an artifact size that is larger than 1" x 1". The tolerance for AOI Level 3 shall be +/- 1/4" and the models shall cover artifact size larger than 1/2" x 1/2".

3.4.1. 3D Geometrical Models

Using a 3D computer application(s), the contractor shall deliver a 3D geometric model of the components listed below. The contractor shall use 3D geometries (e.g., shapes, solids, surfaces, etc.) to represent building components. The contractor shall coordinate and seek approval from the GSA COTR regarding the components to be modeled (examples are listed below). The geometric model should include, but is not limited to, the following components listed in Sections 3.4.1.1 – 3.4.1.5.

3.4.1.1. Architectural

The 3D model(s) shall include slabs/floors, walls (exterior), roofs, doors, windows, etc.

3.4.1.2. Structural

The 3D model(s) shall include trusses, beams, columns, joists, pre-cast systems, etc. (if applicable)

3.4.1.3. Mechanical

The 3D model(s) shall include air handling units, HVAC piping and ductwork, HVAC equipment, etc.

3.4.1.4. Electrical

The 3D model(s) shall include conduits over 1/2", panel boards, electrical, equipment, etc. (if applicable)

3.4.1.5. Plumbing

The 3D model(s) shall include plumbing fixtures and equipment, piping over 1/2", etc. (if applicable)

3.4.2. Building Information Model

The contractor shall provide a BIM of the systems listed in Section 3.4.1.1 – 3.4.1.5. The contractor shall properly use available “intelligent objects” that embody information about the building component requirements and properties (e.g., material properties, functional information, dimensions, etc). The BIM shall be constructed to allow the project team to use the information for one or multiple BIM-analysis applications, as appropriate.

The BIM model shall be in accordance with GSA BIM Guides (www.gsa.gov/bim). The object model shall be submitted in a BIM software application that can export to the Industry Foundation Classes (IFC) format. Autodesk Revit, Autodesk Architectural Desktop, Bentley Architecture, Onuma, Vectorworks, and Graphisoft ArchiCAD are the software applications that have been validated as compatible with the GSA BIM Guide. Other BIM applications may be acceptable; contractors shall seek approval of any alternate formats from the GSA COTR.

3.5. Quality Control Report

The contractor shall provide a Quality Control Report that verifies point cloud (if applicable), registration and post-processing accuracy in accordance with the DST (Table 1). It should identify the specific steps that will be taken, such as but not limited to statistical analyses or independent measurement of standard artifacts. The contractor shall provide, at a minimum, a report on the errors from the control network, the local or instrument coordinate frame, and the project coordinate frame.

4.0 SCHEDULE OF DELIVERABLES

4.1. Submission Schedule

Submission	Deliverables	Schedule
Imaging + Post-Processing Plan	3.1	Within 30 calendar days after Notice to Proceed
Raw Data Acquisition and Registration on Site		
Registered Raw Data & Auxiliary Data	3.2	Within 15 calendar days after completion of on-site imaging/scanning
Preliminary Submission	3.3, 3.4, 3.5	Within 60 calendar days after completion of on-site imaging/scanning
Final Submission	3.3, 3.4, 3.5	Within 60 calendar days after COTR's comments on Preliminary Submissions

4.2. Modifications to Scanning or Post-Processing Plans

If at any time modifications are made to an already approved scan or post-processing methodology, it is the contractor's responsibility to update the scan or post-processing plan and send the revisions to the GSA COTR.

4.3. Status Reports

The contractor shall provide biweekly narrative status reports to the GSA COTR via email. These reports should summarize completed tasks, upcoming tasks, risks, and mitigation plans.

4.4. Post Scan Support Services

The contractor shall provide post scan support services. This includes, but not limited to, phone conferences, data conflict resolution, and model troubleshooting. Post scan support services shall be made available for at least 6 months from completion of the last deliverable.

The contractor shall be responsible for the quality, technical accuracy, and the coordination of all deliverables. The contractor shall, without additional compensation, correct or revise any errors or deficiencies.

Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract.

5.0 EVALUTATION FACTORS

The evaluation factors below will be considered when selecting the contractor for award. For each proposal pertaining to a particular project location, the bid package shall not exceed a total of fifteen pages. Cover and separation sheets are counted and any page after the fifteenth page will not be considered. In addition to the fifteen pages, contractors shall fill out Appendix B and include it as an attachment to their proposal.

5.1. Cost

Offeror shall fill out boxes for all Options in Appendix B with a firm fixed price. Option bids shall be in addition to costs of base deliverables.

5.2. Personnel and Past Performance

This factor measures the relevancy of the contractor's past experience to the requirements of this project. The offeror shall identify key personnel, key subcontractors, and a proposed schedule for the project, as well as a detailed plan describing how the contractor intends to execute the work. The offeror shall identify key positions in their organization they intend to utilize for the project and shall provide a rationale for selecting these positions as being "key". The offeror shall provide resumes for its key personnel. Resumes must document recent and relevant experience. References may be submitted as well. The offeror shall provide a description of all relevant 3D Laser Scanning and BIM Modeling projects

that had similar requirements in the past. Provide descriptions including the project size, objectives, and deliverables. Images and diagrams may be used if available. In addition, this criterion measures the quality of the contractor's past performance for similar projects as defined herein. Quality is judged with respect to workmanship, administration, cost control, cooperation, and adherence to schedule and will be evaluated through reference checks made by the Government on relevant projects, completed or in progress, that include activity-specific experience.

5.3. Preliminary Scan, Post-processing, and Quality Control Plans

This factor measures the contractor's demonstrated understanding of the project through a proposed Preliminary Scan, Post-processing, and QC Plans. These plans should address operation and risk mitigation strategies with respect to the services and deliverables outlined in Sections 1.0-4.0.

6.0 GOVERNMENT FURNISHED INFORMATION

The government shall cooperate to the fullest extent possible in providing information that is known to exist. Information listed below will be made available to the contractor upon request via the GSA COTR.

6.1. Current Drawings and Specifications

Current drawings and specifications for each facility structure will be provided, if available, after GSA issues the Notice to Proceed.

6.2. Site Visit

Should the offeror like to visit the site during the solicitation period, GSA may be able to facilitate the site visit. Contact GSA contract specialist for further details.

6.3. Pre-Bid Conference

The CO, GSA COTR, and regional teams will hold a pre-bid teleconference on **Tuesday, August 19th, at 2pm ET**. Contractors bidding on any portion of this solicitation will have the opportunity to gain clarifications on that day. The teleconference number is **888-889-1956** and passcode is **BIM**.

6.4. Photos

A list of photos depicting all AOIs for each facility requiring a higher resolution (if available) will be provided.

6.5. Data Access

The contractor may receive access to other data and information necessary to perform this work only if determined and facilitated by GSA and upon GSA's discretionary rights, resolve and approval.

6.6. Site Access

The government will assist the contractor with obtaining security access to the site. The contractor shall be responsible for all administrative matters regarding applications for access. The government intends the execution of the work to be

conducted between the hours of 7:00 am and 5:00 pm, Monday through Friday. Work outside of these hours shall be requested by the contractor to the GSA COTR and regional representative and are subject to security approval. This is a firm fixed price contract. Contractors shall not be entitled to additional compensation for work outside of the normal hours described above.

6.7. Local Environmental Conditions

Local weather conditions are expected to be known by each contractor. The government will not be held liable for weather delays.

6.8. Notice To Proceed

Award of this contract will be predicated upon security clearance approvals which are conducted by security personnel at the project location. Therefore, although an award is made by GSA for performance under this contract, work may not commence until a Notice To Proceed is formally issued by the Contracting Officer. GSA assumes no financial obligation for the period between the award of the contract and the Notice To Proceed. If a Notice To Proceed is not issued due to security concerns, GSA reserves the right to terminate the contract without recourse.

6.9. Ownership and Rights in Data

GSA PBS shall have ownership of and rights to all data contained in BIMs and other deliverables developed and provided by the A/E in accordance with the applicable provisions of the A/E contract, including relevant clauses detailed under FAR 52.227 and GSA Order 3490.1. The contractor must comply with, but is not limited to, the following 3490.1 clauses:

All 3D and Building Information Modeling-related information is considered to be Sensitive But Unclassified (SBU). SBU documents provided under contract are intended for use by authorized users only. In support of the contracted requirements, GSA will require contractors to exercise reasonable care when handling documents relating to SBU building information. Dissemination of any information provided for, generated by, and resulting from GSA projects is only allowed to authorized users. It is the responsibility of the person or firm disseminating the information to assure that the recipient is an authorized user and to keep records of recipients. Valid identification for non-Government users is required to receive SBU building information. For qualifying forms of identification, refer to GSA Order 3490.1.

The efforts required above shall continue throughout the entire term of the contract and for whatever specific time thereafter as may be necessary. Authorized users should store electronic information in a password protected (non-public) environment. Necessary record copies for legal purposes (such as those retained by the architect, engineer, or contractor) must be safeguarded against unauthorized use for the term of retention. Documents no longer needed shall be destroyed (such as after contract award, after completion of any appeals process or completion of the work). Destruction shall be done by burning or shredding hardcopy, and/or physically destroying CD's, deleting and removing files from the electronic recycling bins, and removing material from computer hard drives using a permanent erase utility or similar software. A Written Agreement of Disposal must be provided to the GSA upon contract completion.

For further detail, refer to GSA Order 3490.1, FAR 52.227, and other relevant data ownership and rights regulations. A copy of these documents may be obtained by contacting the GSA CO.

7.0 Security Requirements

Implement PBS Order 3490.1, dated March 8, 2002, Sensitive but Unclassified Information-Document Handling and Encryption Requirements.

All contract information, either in electronic or paper formats, shall have imprinted on **each** page of the information:

**PROPERTY OF THE UNITED STATES GOVERNMENT
FOR OFFICIAL USE ONLY
Do not remove this notice
Properly destroy documents when no longer needed**

The following paragraph will be included on the *cover* page of the information (such as the cover page on the set of construction drawings and on the cover page of the specifications) and on the label of all magnetic media:

**PROPERTY OF THE UNITED STATES GOVERNMENT
COPYING, DISSEMINATION, OR DISTRIBUTION OF THESE DRAWINGS, PLANS
OR SPECIFICATIONS TO UNAUTHORIZED USERS IS PROHIBITED
Do not remove this notice
Properly destroy documents when no longer needed**

The previous two statements shall be **prominently** labeled in bold type in a size appropriate for the document. On a set of construction drawings, for example, the statements should be in a minimum of 14 point bold type.

8.0 ADMINISTRATION

8.1. GSA Representatives

On behalf of the GSA Contracting Officer (CO), the GSA COTR is responsible for the general administration of this Work Order and review/acceptance of all task deliverables. The following individuals will serve as the Government points of contact concerning the contract negotiations, information exchange, submission review, and payment. Nothing said by the GSA COTR and/or the regional project team shall be construed to change contract requirements unless supported in writing by the CO.

Contracting Officer	COTR	Region 3
Collette Scott, Contracting Officer	TBD	TBD

Physical Capital Asset Mgmt Division (PGE) 1800 F STREET NW Room: 4302	PBS Office of the Chief Architect & Capital Construction Programs 1800 F Street NW	Project Management Branch (3PM) 20 N. 8 th Street
Washington, DC 20405	Washington, DC 20405	Phila., PA 19107
collette.scott@gsa.gov		
202-501-9154		

8.2. Payments

Payment terms shall be Net-30 following receipt of Deliverables. Invoices may be submitted for 50% of the respective Option prices following approval of preliminary findings by the GSA COTR. Final invoices may be submitted after completion of the respective Option efforts.

All original invoices shall be sent to the following address:

General Services Administration
 FTS and PBS Payment Division
 P.O. Box 17181
 819 Taylor Street (required only for overnight deliveries)
 Fort Worth, TX 76102
 Attn: Marilyn Hatcher (817) 978-2408

A copy of the invoice shall also be sent concurrently to the GSA project manager, and GSA COTR listed herein. Failure to follow these procedures may result in delay of payment.

Appendix A – Supplemental Information

The United States Custom House was completed in 1934 and is seventeen-stories in height. The building consists of a three-story base, stepping back to raise 14 additional stories as a cruciform tower. Many decorative elements adorn the exterior of the building including eagles, shells, sea creatures, symbols of the government, commerce and maritime history. There are a total of 8 different roofs and 1050 windows. The Custom House is presently being considered to be named a national historic landmark.

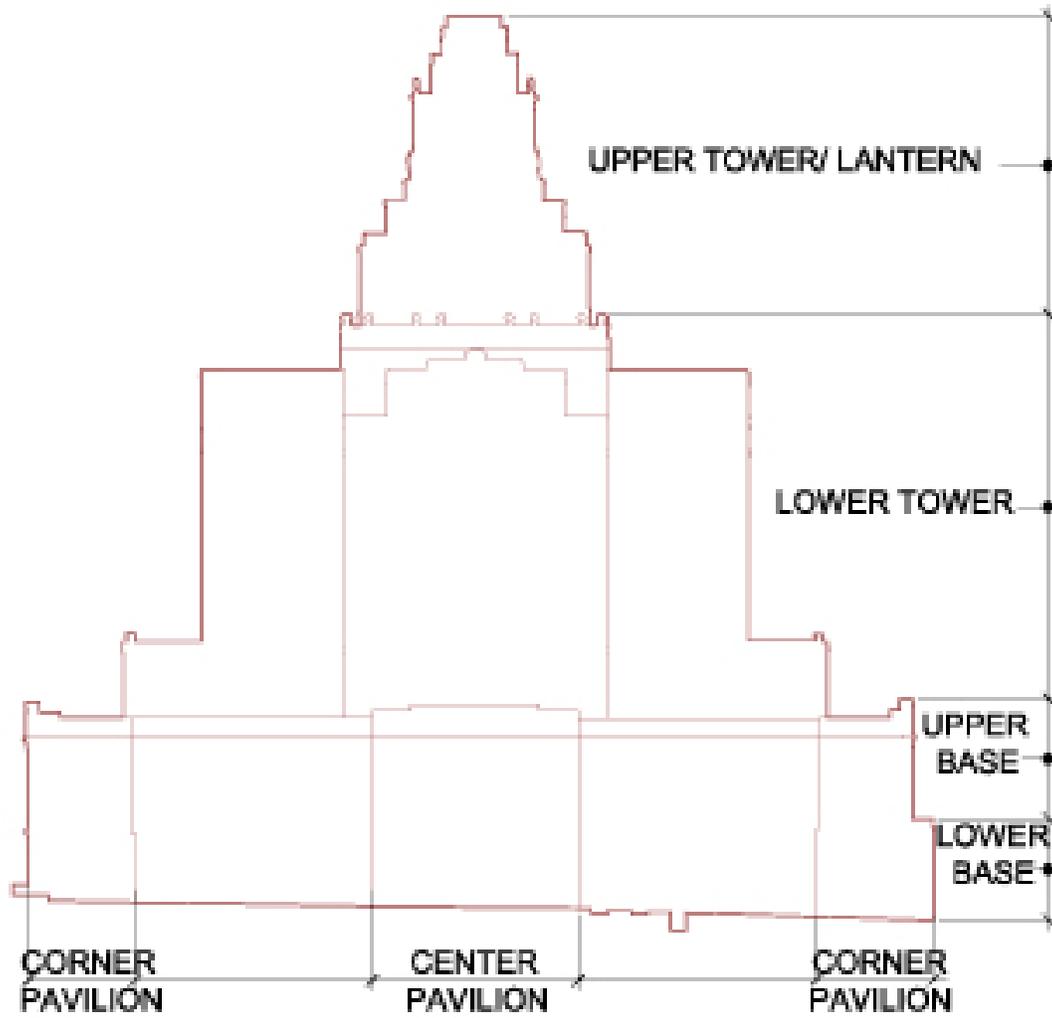


Figure 1: Identification of Building Elements



Figure 2: Elevation

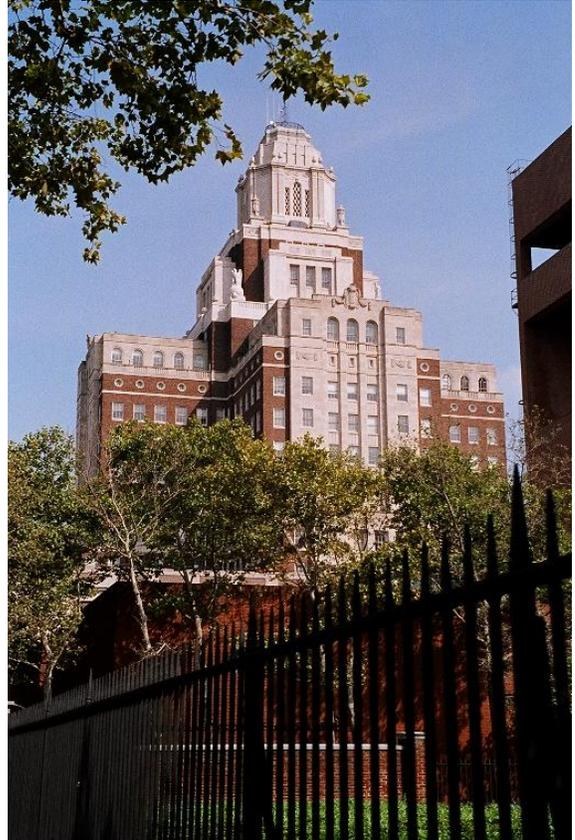


Figure 3: Elevation



Figure 4: Isometric Elevation



Figure 5: Isometric Elevation



Figure 6: Aerial View with Site Layout

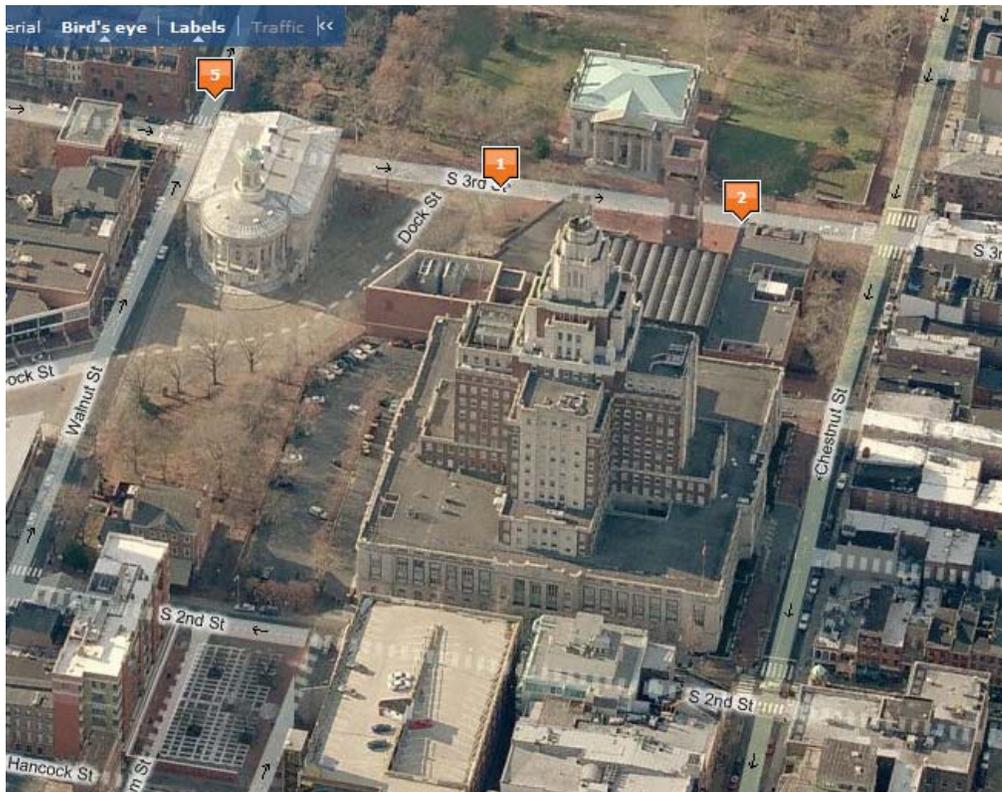


Figure 7: Aerial View with Site Layout

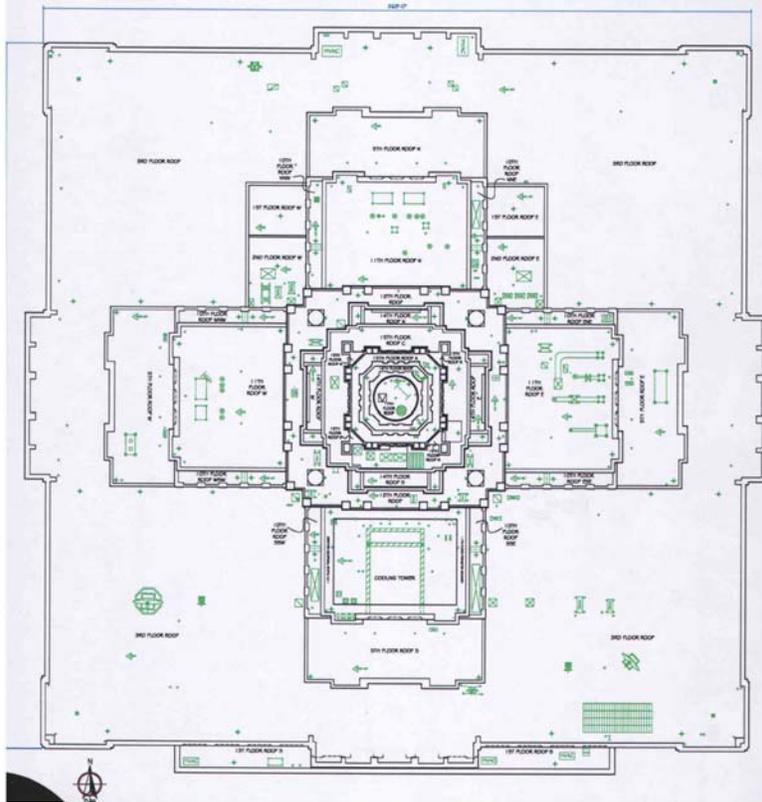


Figure 8: Roof Plan



Figure 9: Aerial View of Roof

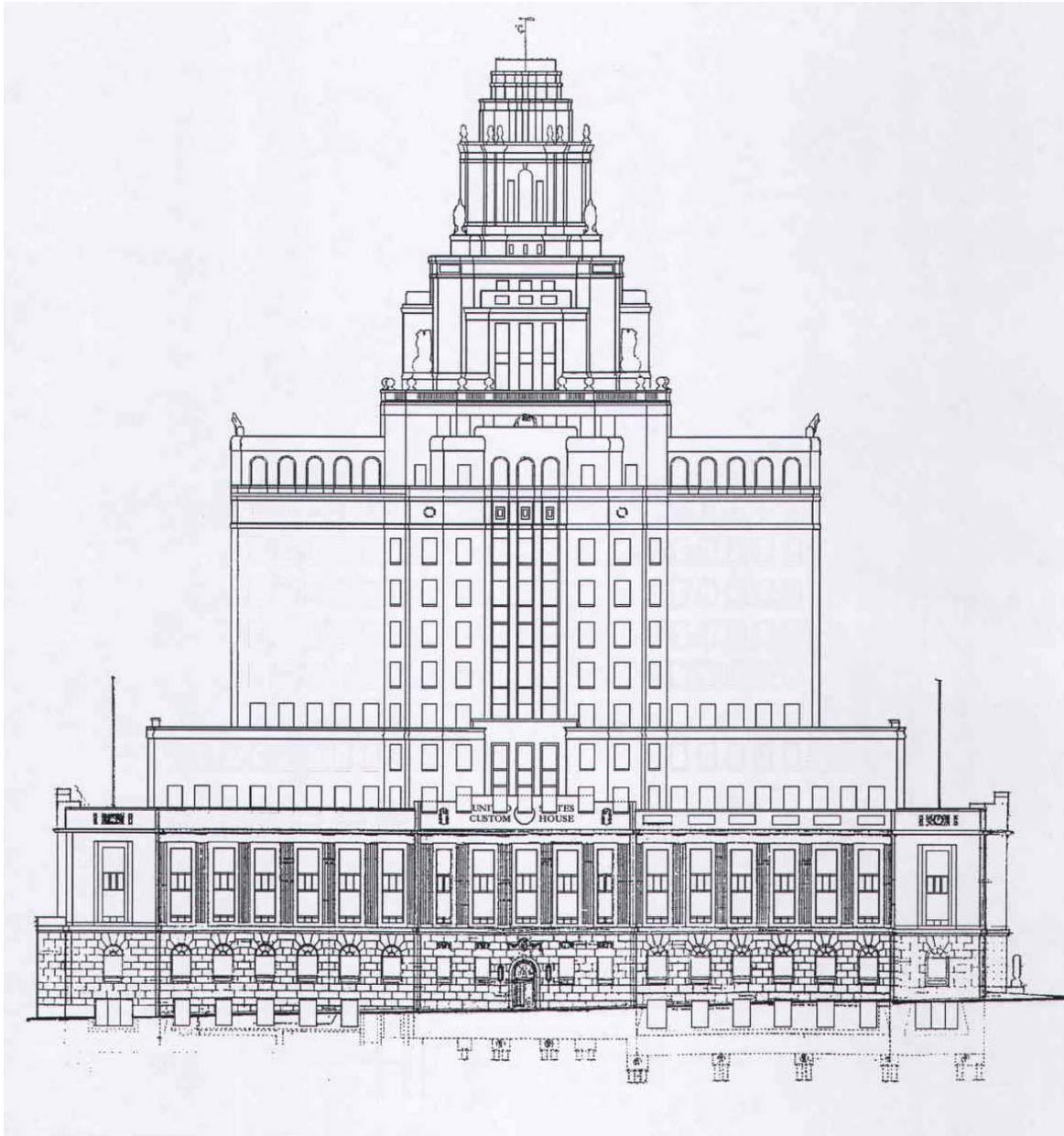


Figure 10: Second Street Elevation- East

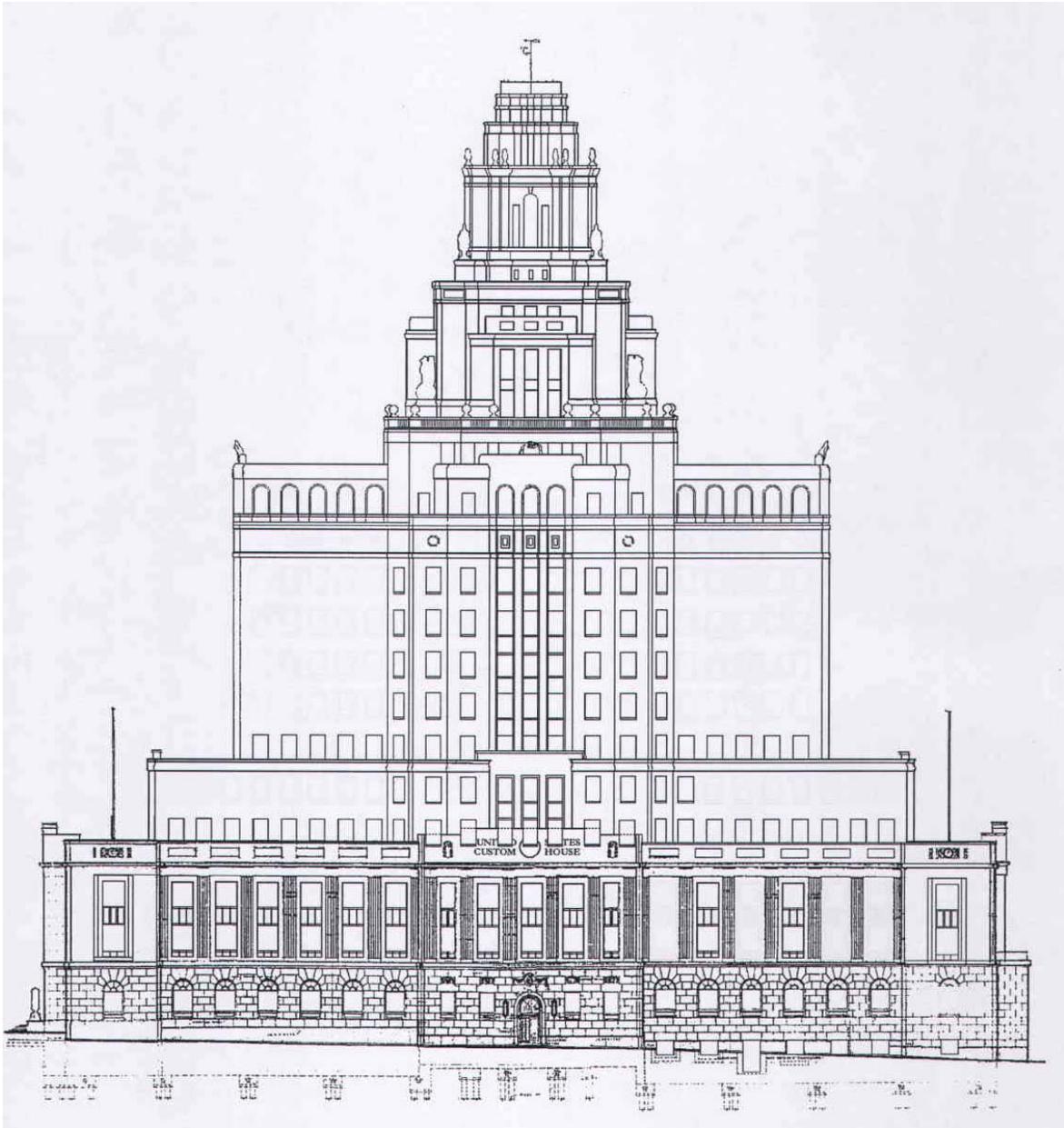


Figure 11: Third Street Elevation – West

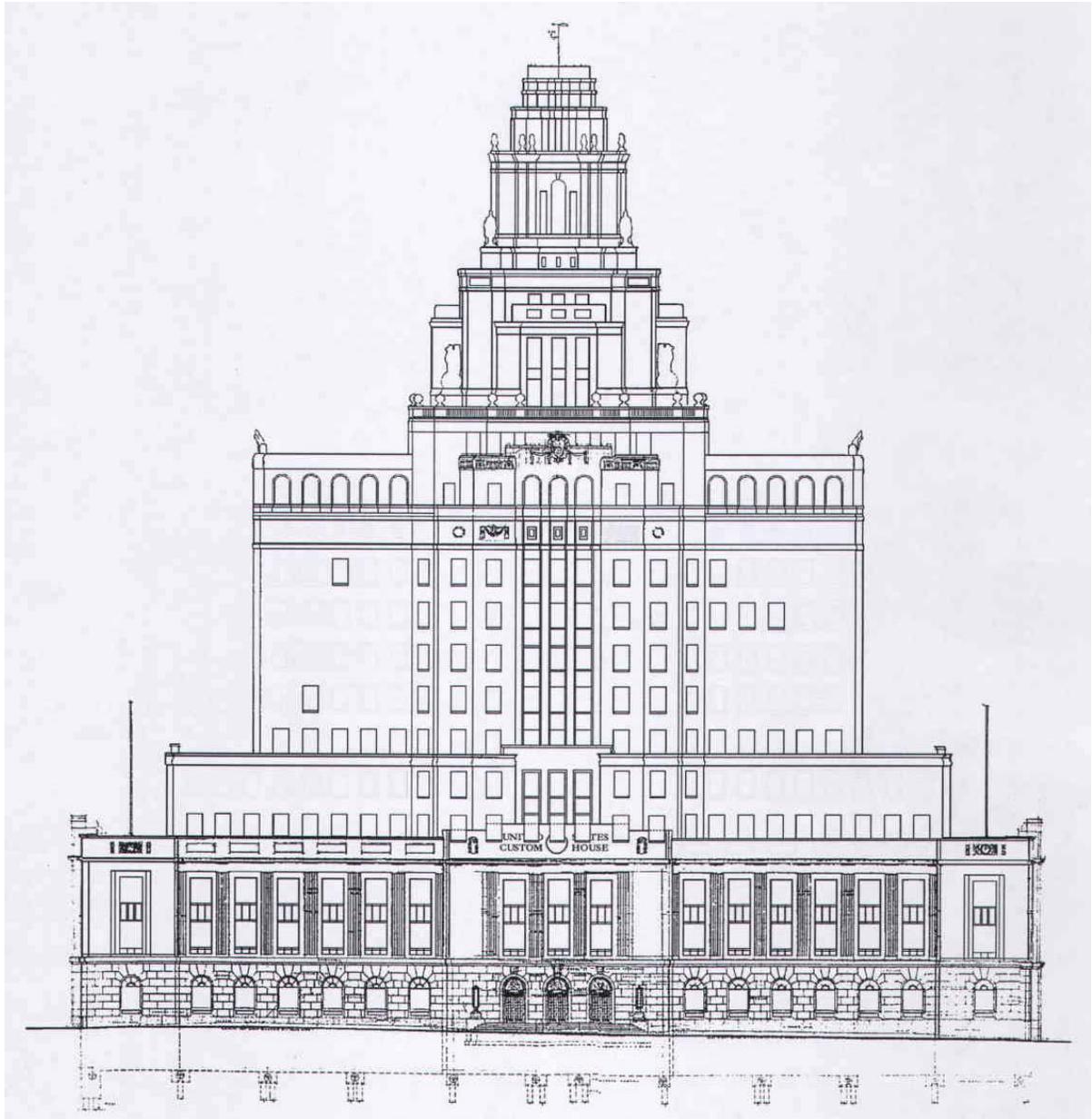


Figure 12: Chestnut Street Elevation – North

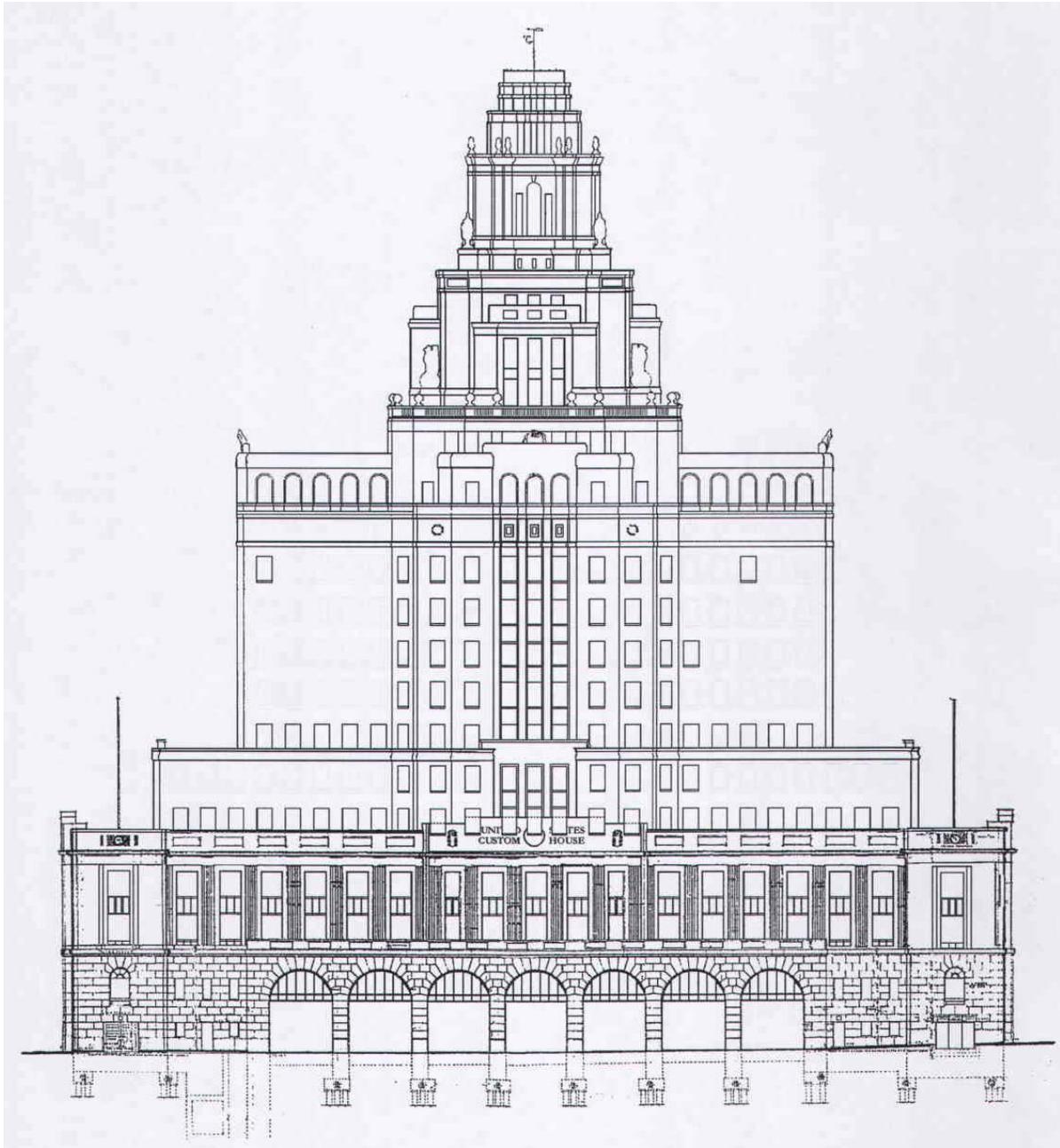


Figure 13: Walnut Street Elevation – South



Figure 14: Terracotta Eagle



Figure 15: Terracotta Eagle



Figure 16: Window Type P; the majority of windows are three-over-three double-hung wood windows.



Figure 17: Window Type "P" shaded in yellow (Typical all Facades)

Appendix B – Bid Proposal Summary Sheet

Contractors shall use this form as an attachment to their bid proposals. Contractors are to insert bids for base and all options. Costs for options shall be in addition to base deliverables for their corresponding AOI. The GSA reserves the right to exercise Options at its discretion.

Bid Proposal Summary Sheet – Philadelphia Custom House				
Area of Interest	Deliverable		Type	Cost
	SOW Section	Description		
Base Deliverables				
Applicable to all levels of details	3.1	Imaging/Scan + Post-Processing Plan	Base	\$
	3.2	Registered Raw Data & Auxiliary Data		
	3.5	Quality Control Report		
Total Base Bid:				\$
Options Deliverables				
1-A: Site	3.3.1	Site Plan	Option A	\$
	3.4	3D/BIM		
2-A: Exterior (Facades)	3.3.1	Plans		
	3.3.2	Elevations		
	3.4	3D/BIM		
3-A: "P" Type Windows	3.3.1	Plans		
3-B: Terracotta Eagles	3.4	3D/BIM		
Total Options Bid:				\$
Total Bid (Base + Options)				\$
Contractor Name:				